Rotorcraft Damage Tolerance and Health and Usage Monitoring Systems Research Review Meeting

Sponsored by
National Rotorcraft Technology Center, NASA Ames Research Center
Federal Aviation Administration, William J. Hughes Technical Center
NASA Ames Research Center, Mountain View, CA
Building 219, 2nd Floor, Conference Room 203
December 7 - 9, 2004

AGENDA

Day 1 - Tuesday, December 7 - *Open Session*			
08:15 am	Welcome and Introductions	D. Dugan	NRTC
08:20 am	Meeting Objectives/Perspectives/Expectations	D. Le	FAA
Rotorcraft Damage Tolerance			
08:25 am	Development and Validation of Crack Growth Models And Life Enhancement Methods	S. Atluri	UCI
09:05 am	Fatigue Crack Growth Testing to Quantify the Effects of Shot Peening for Metallic Rotorcraft Components	J. Locke	WSU
09:45 am	**Break**		
10:00 am	Development/Validation of Crack Growth Models and Life Enhancement Methods for RCDT	S. Daniewicz	MSU
10:40 am	Development and Validation of Crack Growth Databases Use in Damage Tolerance Approach for Aircraft Propellers and Rotorcraft	J. Newman, Jr.	MSU
11:20 am	Rotorcraft Materials Database Development	M. James	NASA LaRC
12:00 pm	**Lunch**		
01:00 pm	Development and Validation of Improved Fatigue Crack Growth Test Methods and Analytic Models Applicable to Damage Tolerance Analyses of Aircraft Propellers	R. Forman J. Beek	NASA JSC
01:40 pm	Development and Validation of Advanced Test Methods to Generate Fatigue Crack Growth and Threshold Data for Use in Damage Tolerance Analyses	S. Forth	NASA LaRC
02:20 pm	Development and Validation of an Automated Small-Crack Detection Monitoring System	A. Newman	ARL
03:00 pm	**Break**		
03:10 pm	Improvements in Crack Detection of Critical RC Components	T. Gray	ISU/RITA
03:50 pm	Tests and Interpretation of Small Fatigue Crack Growth in Metallic Rotorcraft Structures with Emphasis on the Statistical Characteristics	G. Kardomateas	GIT
04:30 pm	NRTC/RITA Rotorcraft Damage Tolerance Research	S. Singh	RITA
05:10 pm	Government Comments and Progress Assessment	Yu/Le/Cuevas	NRTC/FAA
05:30 pm	Assessment of Future AGILE Applications for RC	FAA/RITA/KSR	(Invitation only)
06:00 pm	**Adjourn**		

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Day 2 - Wednesday, December 8 - *Government and RITA Members Only*			
Rotorcraft Damage Tolerance - Continue			
08:30 am	Bell Helicopter Rotorcraft Damage Tolerance	S. Singh	Bell
	Specific Issues	M. Augustin	
	Spectrum Development and Usage Monitoring		
	Crack Growth Testing and Material Property Database		
	NDI/E Technology Development		
	Crack Growth Analysis and Validation (AGILE)		
	Risk Assessment		
10:15 am	**Break**		
10:30 am	Boeing Helicopter Rotorcraft Damage Tolerance	A. Sane	Boeing
	Specific Issues	W. Weiss	
	Mission Spectra and Usage Monitoring	T. Larchuk	
	Crack Growth Analysis: Correlate Analysis/Test Data		
	Crack Growth Analysis and Validation (AGILE)		
	Qualification Test Methods		
12:15 am	**Lunch**		
1:00 pm	NRTC Director's Remarks	Andy Kerr	NRTC
01:15 pm	Sikorsky Helicopter Rotorcraft Damage Tolerance	J. Schaff	Sikorsky
	Specific Issues		
	Damage Database		
	Crack Growth Rate Data		
	NDE, Small Cracks and Benefits		
	Crack Growth Analysis Methods (AGILE)		
	Corrosion Sensors		
03:00 pm	**Break**		
03:20 pm	Government Comments and Progress Assessment	Yu/Le/Cuevas	NRTC/FAA
04:00 pm	**Adjourn**		

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Day 3 - Thursday, December 9 - *Open Session*			
Health and Usage Monitoring Systems (HUMS)			
08:30 am	FAA HUMS R&D Overview	D. Le	FAA
09:00 am	HUMS R&D Plan – Manufacturer's Perspectives	D. Redman	SA
09:30 am	HUMS R&D Plan – OEM's Perspectives	R. Safa-Bakhsh	BC
10:00 am	HUMS R&D Plan – OEM's Perspectives	M. Davis	SAC
10:30 am	**Break**		
10:45 am	Government Comments and Progress Assessment	Yung/Le/Cuevas	NRTC/FAA
11:15 am	Wrap-up	All	
11:45 am	**Adjourn**		

Presentation Guidelines:

1) Speakers should plan their presentations such that interaction with other attendees during and following the presentations can be accommodated within the time period specified.
2) Presentation shall cover last year (last 12 months) efforts to include: objectives/goals, technical approaches, overall budget and expenditures status (no labor rates or cost information required), technical issues/concerns, clear and detailed significant research results and accomplishments, recommendations, planned research to complete the project.

Directions and Lodging Information: Provided in previous emails.

Visitor Badges: Visitor badges will be issued to attendees who confirm their attendance and participation by November 5, 2004. Visitor badge and permission to enter NASA Ames shall be denied if participant's confirmation is not received.

Continental Breakfast and Refreshments: Continental breakfasts will be provided in the morning. Refreshments will be provided for all breaks. No registration fee is required.

Dress Code: Your preference, e.g., typical business or casual attire.

Points of Contact:
Army/NASA Ames: Dan Dugan (650)-604-5271 or Dr. Yung Yu, (650)-604-5834
FAA/Technical Center: Dy Le, (609)-485-4636